

MODULE 6: INFORMATION AND MOBILIZATION OF CITIZENS

EDUCATIONAL OBJECTIVE:

To reduce the use of pesticides and prioritize the elimination of the most dangerous ones, understand the objectives of citizen initiatives aimed at: (1) the application and strengthening of national laws on pesticides; (2) compliance with international and regional conventions concerning them; (3) support for the implementation of alternative agroecological solutions.

The dangers of pesticides are increasingly documented and many stakeholders (*researchers, NGOs, consumer associations, some farmers' unions, elected officials, etc.*) are putting pressure on decision-makers to restrict or even abolish the use of the most dangerous ones and to change the legislation concerning them. These citizen initiatives are important and necessary levers for accelerating, ensuring compliance with and establishing a legislative and regulatory framework that protects the environment and human health.

Many people hope for the complete abolition of pesticides, a desirable objective, but our experience compels us to note that a step by step approach is preferable due to considerable inhibitions among farmers and the stakeholders who surround them. The necessary “exit from pesticides” cannot be achieved without:

- promoting **agroecology** on a grand scale accompanied by moving away from monoculture, water pollution and other adverse effects of excessively industrial agricultural production models. This means raising awareness among farmers, future farmers, consumers, citizens, elected officials, politicians, and stakeholders in the agri-food sector about the challenges of agroecology.
- An uncompromising fight against the practices of certain **agrochemical companies** (*lack of information for users, marketing of hazardous pesticides, lobbying to maintain the lack of transparency regarding the harmfulness of products and minimizing regulatory obligations regarding the studies necessary to evaluate a pesticide, etc.*).
- Questioning of the objectives and organization **of the agricultural sector**, which gives priority to short-term economic considerations at the expense of medium and long-term sustainability. This is the case, for example, in West Africa for several cotton operations, but also for peri-urban vegetable farming operations involving mostly family farmers.

TOPIC 1:

Determine and summarize mobilization challenges to be overcome for genuine alternatives to the use of hazardous pesticides and explore examples of mobilization in France, Africa and South America.

Numerous examples show us that nothing is inevitable, that the fight against multinationals, who do not care about people's health, is not lost and that everywhere in the world, farmers have the ability to train themselves and to evolve their practices. Furthermore, smallholder farmers whom AVSF supports have answers to these challenges.

Thanks to their abundant labor force, rich biodiversity and the diversity of their climates, developing countries have the resources necessary to successfully overcome this challenge and develop sustainable agriculture that gives everyone access to quality food.

Examples of citizen initiatives in France, EU, Argentina and Africa:

AVSF initiative that addresses the issue of pesticides and promotes agroecological alternatives

For two decades, AVSF has been working on these issues together with its Latin American and Madagascar partners and, as of 2014, together with FOs in three West African countries [cf. *projets agroécologie financés par le FFGM et l'UE au Nord Togo et par l'Afd au Mali et Sénégal (agroecology projects financed by the FGEF and the EU in Northern Togo and by the Afd in Mali and Senegal)*]. Several training courses on reducing the use of the most hazardous pesticides and the promotion of viable alternatives have been carried out in partnership with these FOs in Northern Togo (2015), at Kolda in Senegal (2016) and at Kita in Mali (2016 and 2018).

In 2014, AVSF joined forces with other associations to promote alternatives to pesticides [cf. <https://www.AVSF.org/fr/posts/1634/full/une-semaine-d-alternatives-aux-pesticides>]. In March 2015, AVSF launched a communication campaign focusing specifically on reducing the use of the most dangerous pesticides in countries of the Southern Hemisphere: <https://stop-pesticide.org>

In 2018, following a decision by AVSF's Board of Directors, a "pesticide, veterinary drugs and alternatives" working group was created within the NGO. Its members include agronomists, veterinarians and three experienced farmers. A roadmap has been drawn up and includes 3 axes, including the promotion of alternatives in partnership with farmers' organizations of Southern African countries, local or international development NGOs and African agricultural research centers.

Mobilization of elected officials to ban the use of dangerous pesticides on certain lands and near homes, schools, health centers...

In Argentina, where the aerial application of herbicides has grown significantly in many of the country's regions, collateral damage to health and biodiversity has been observed by the population and verified by numerous scientists. For more than a decade, this has prompted the mobilization of elected officials and, on a more global level, numerous stakeholders in civil society. These

⁵⁸ Cf. https://www.fundeps.org/wp-content/uploads/2018/01/distancias_para_la_aplicacion_de_agroquimicos.pdf and also <https://aldiaargentina.microjuris.com/2020/01/15/decreto-fumigado-se-anula-el-decreto-provincial-que-habilita-fumigaciones-con-agrotoxicos-cerca-de-escuelas-rurales-a-distancias-menores-a-1000-mts-por-tierra-y-3000-por-aire/>

struggles have sometimes been taken into account by government authorities who have called for the amendment of standards in order to better ensure the protection of inhabitants ⁵⁸.

In France and in some other European countries, interest in the issue of exposure of local residents to pesticides is recent but, in adults as well as in children, there is abundant scientific data indicating an increase in neurological disorders, asthma and probable endocrine disruption. Serious questions remain regarding the risks of leukemia and brain tumors in children. (cf. *PELAGIE – INSERM study*; <http://www.pelagie-inserm.fr/>). Faced with such alarming scientific data as highlighted in the box below, associations of local residents, elected officials and doctors (e.g. *the Alassac association in the Limousin region*) are mobilizing to better control, restrict or prohibit treatments near homes.

"Reeve, please let our mayors protect us"

In May 2019, the mayor of Langouët *[a village in Brittany - northwestern France]* felt that legislation failed to offer sufficient protection and issued an order prohibiting the use of pesticides "at a distance of less than 150 meters from any cadastral parcel containing a building for residential or professional use". The elected official's order was then challenged by the prefecture and he was brought before an administrative court, which overturned his order.... On the other hand, in November 2019, the administrative court of Cergy-Pontoise *[a city near Paris]* rejected the request to suspend two anti-pesticide bylaws issued by the city councils of Gennevilliers and Sceaux, on the grounds of a "serious risk to the populations exposed to these products".

The French government has ignored the fears of mayors and retained in late December 2019 very small distances to homes (3 to 20m depending on the type of product and the method of spraying). A hundred mayors then formed an association and have no intention of stopping their fight.

Citizen mobilization and advancement of scientific knowledge are leading to the banning of certain environmentally toxic insecticides in Europe.

The examples below concern the ban, in most EU countries, of the highly toxic insecticides: neonicotinoids and dimethoate.

Example 1: Ban in the EU of three insecticides from the neonicotinoid class

After many years of mobilizing beekeepers, scientists, environmental associations and farmers' unions promoting smallholder agro-ecologies *[including Via Campesina Europe]*, the high toxicity of insecticides of the neonicotinoid class has finally been taken into account (known as "bee killers", they are neurotoxic and very persistent).

The scientific case for their toxicity is very strong and the European Food Safety Authority (Efsa) finally recognized in February 2018 that these neonicotinoids are highly toxic to honey bees, solitary bees, bumblebees and other pollinating insects.

Following these campaigns backed by scientific findings, the representatives of the EU member states have, in April 2018, by a qualified majority, ruled to ban three neonicotinoids on all outdoor crops. The banned neonicotinoids are clothianidin, imidacloprid and thiamethoxam, active ingredients currently widely used on cotton in Africa...

Unfortunately, a number of European sugar beet companies have obtained exemptions in 2019 in Belgium and for 2021, 2022 and 2023 in France allowing the continued use of neonicotinoids". The environmental requirements attached to these exemptions have certainly been strengthened, but this setback has left its mark on people's minds and encouraged other industrial sectors to request exemptions.

Example 2: Dimethoate ban procedure in France and a number of other EU countries

In February 2016, the ANSES ⁹⁹ banned dimethoate (*organophosphate insecticide*) in France because of its impact on human health. The use of this old insecticide had experienced a significant renaissance in prior years, in connection with the arrival in France of a new summer fruit pest, which also affects cherries: the *Drosophila Suzukii* (*or Japanese fly*). In addition to the threat dimethoate-based pesticides posed to the health of farmers, their employees and consumers, this compound exposed the cherry growing sector to a health hazard.

Despite opposition from the majority of business's leaders, its prohibition was a justified measure that was also supported by the consumer associations and an agricultural trade union, the Confédération Paysanne.

However, this decision should not result in production (*and associated pollution*) being relocated to competing countries. This is what would have happened if the French government had allowed cherry imports to replace local production, which became more expensive due to the dimethoate ban. For this reason, it engaged a safeguard clause, i.e. a provision of European law permitting derogation from the free movement of goods within the Single Market. It therefore prohibited the import of cherries from countries where dimethoate was still authorized. This protectionist measure did not trigger a trade war, contrary to what advocates of the free movement of goods claimed. Moreover, the majority of cherry-producing countries in Europe have in turn banned dimethoate (*for example, in order to maintain access to the French market*). Nevertheless, some cherry exporting countries like Austria, Croatia, Turkey, Argentina or Chile still use this very toxic insecticide.

Example 3: Ban of metam sodium on lamb's lettuce in France in 2019

Despite multiple health incidents, the leaders of the French **lamb's lettuce** growing **business** (mainly export-oriented) wished to keep using metam sodium, a volatile and highly toxic multi-purpose biocide used to treat soils (*to control fungi, worms, weeds, ...*). The public authorities withstood their pressure and finally decided to ban it in November 2018 (*however, only after dozens of cases of respiratory intoxication had been observed in farmers, their employees or in local residents*). Consumer prices for lamb's lettuce have risen slightly since then, but there have been fewer health problems for lamb's lettuce growers, their employees and their neighbors.

Mobilization in 2019 of African and international researchers and the Arusha Appeal

At the initiative of academics and researchers, an interdisciplinary conference entitled "Pesticides and Policy(s) in Africa" was organized in Tanzania from 28 - 31 May 2019. It was held in Arusha at the Tropical Pesticide Research Institute (TPRI) and the call for communication was very much in line with AVSF's guidelines and those of this training guide (cf. https://www.ehess.fr/sites/default/files/evenements/fichiers/cfp_conference_pesticide_politics_vf_final_lowres.pdf).

⁹⁹ ANSES: The French Agency for Food, Environmental and Occupational Health & Safety has a network of nine reference and research laboratories located throughout France.

France was highly involved in organizing this seminar in partnership with the Tanzanian authorities and with the support of the French Embassy. The majority of the 80 people present were researchers in the social sciences and humanities with some health specialists (for France, researchers from CNRS, IRIS, INRA). Half of the participants were Tanzanians and Kenyans. 6 people were from West African countries (*4 from Burkina, 1 from Ivory Coast, 1 from Benin*).

At the end of the conference, the following appeal was launched and signed by the participants.

The Arusha Call to Action on Pesticides

Recognizing that the protection offered by personal protective equipment (PPE) under real-life conditions is insufficient for the safe use of pesticides, even by responsible and trained users;

Deeply concerned about the rise in Africa of non-communicable diseases with a known link to chronic pesticide exposure (e.g., cancers, neurological diseases, cognitive and neurodevelopmental disorders, reproductive disorders, cardiovascular diseases, diabetes, attention deficit disorders in children);

Aware of the high burden of acute pesticide poisonings - including voluntary ingestion as the result of suicide attempts;

Seriously concerned about persistent contamination of soil, water, air and food, and collateral damage to non-target organisms;

Acknowledging consumers' demand for safe and healthy food;

Recognizing the inadequacy of regulations, the almost universal failure to enforce them, the high cost of controls and the difficulty of managing product flows at borders;

Recognizing the enormous economic costs of collateral damage to public health and the environment from the use of pesticides;

We, the participants of the conference "Pesticides and Politics in Africa", conclude that, under their real-life conditions of use, pesticides cannot be used safely.

Recognizing the role played by farmers' organizations, non-governmental organizations and civil society organizations in combating the dangers of pesticide use and in seeking alternatives to synthetic pesticides;

Aware that the use of pesticides leads to serious human rights violations, which particularly affect vulnerable communities, such as smallholders, women, children and the elderly;

Realizing the potential of agroecology to promote environmental and social justice, human dignity, resilience and the fight against poverty;

We call on the African Union Commission, the Assembly of Heads of State of the African Union, the Conferences of Ministers of Agriculture and Health of the African Union, international organizations [United Nations, World Bank, IMF] and pesticide manufacturers to act to protect the environment and human health from the harmful effects of synthetic pesticides. This means doing the following, among other things:

1. Immediately banning HHPs (in accordance with the 8 criteria of the FAO/WHO Joint Meeting on Pesticide Management) that have been shown to contribute to non-communicable diseases and reproductive disorders;
2. Make publicly available all information on the toxicity of pesticides to human health and ecosystems, as well as data on pesticide residues in food products and the environment;
3. Setup operational systems for monitoring acute and chronic pesticide poisonings, as well as environmental contamination and pesticide residues in food, also by setting up certified laboratories;
4. Train health care providers in the management of pesticide poisoning;
5. Ensure effective cooperation between ministries to prevent pesticide poisonings;
6. Harmonize regulatory frameworks in Africa and ensure the effective implementation of international conventions, agreements and protocols on pesticides to which the recipients of this appeal are signatories;
7. Ensure the implementation and strict enforcement of existing pesticide regulations and the monitoring of their effects;
8. Hold pesticide producers, importers and promoters accountable for the effects of their products on human health and the environment, and require them to set up a collection system for empty pesticide containers, through incentive mechanisms;
9. Phase out subsidies and tax schemes that promote pesticide use;
10. Promote agroecological production, including training and outreach, and research into alternatives to synthetic pesticides for pest control, with the support of accredited laboratories and direct support to farmers in the use of mechanical alternatives.

All these measures will help to safeguard the right of African populations to dignity, social and environmental justice and will support their right to live in a safe environment.

Mobilization against the use of glyphosate in Africa

“Africa must immediately ban the use of glyphosate!” - African Centre for Biosafety – Article printed August 2019 by Sasha Mentz Lagrange *(independent sustainability consultant living in South Africa).*

Summary of this article: “Glyphosate and the additives used in formulations containing this herbicide have penetrated every part of our environment and our entire food chain. The persistence and the pervasiveness of these chemicals confronts us with one of the greatest health crisis that humanity has ever faced. This crisis is already manifesting itself as evidenced by the increase in health problems and chronic illnesses around the world *(particularly in Latin America where widespread poisoning has been reported as a result of aerial spraying)* and these health problems have been legally recognized by three recent court cases in the US.

Between 2015 and 2019, the number of countries with full or partial bans on glyphosate and glyphosate-based herbicides *(HBG)* has grown. But many countries, particularly those of the South, have already made this decision. For instance, national bans are in place in Oman, Saudi Arabia, Kuwait, the United Arab Emirates, Bahrain, Qatar, Sri Lanka *(with partial lifting for specific crops)*, Vietnam, Saint Vincent and the Grenadines. Bans are also in place in federal states *[(Punjab and Kerala in India) or in municipalities (Brussels and many English, Spanish and French cities)]*.

Glyphosate use by private individuals has been banned in the Netherlands *(2015)*, Sweden *(2017)*, Belgium *(October 2018)* and France *(2019)*, and restricted use is also in place in many countries *(Czech Republic, Denmark, Netherlands, Italy)*. In Africa, only one country, Malawi, has banned the import of glyphosate in April 2019.

The trend is the opposite in the majority of African countries, as glyphosate-based total herbicides are increasingly used in agriculture as well as in urban areas *(South Africa is reportedly the largest consumer of glyphosate on the continent)*. On the other hand, a link to the spread of pesticide-related diseases and deaths is difficult to establish because acute and chronic poisoning data are not collected at the level of each local authority and country. However, many African health practitioners are seeing a sharp increase in these cases in their areas of work.

Current registrations of glyphosate-based herbicides are unfortunately based on obsolete data which are often the product of pressure from the agrochemical industry including Monsanto/Bayer. However, glyphosate is currently listed as a hazardous substance. In 2015, the World Health Organization's (WHO) International Agency for Research on Cancer *(IARC)* announced that glyphosate was “probably carcinogenic to humans”. As this classification is constantly being challenged by other agencies and industry, the IARC has been compelled to repeatedly affirm its finding of “strong” evidence of carcinogenicity, both for “pure” glyphosate and for glyphosate-based formulations”. Other independent studies have clearly established the carcinogenicity of glyphosate and BPH and linked glyphosate to several chronic diseases. A fact largely unknown to the public, and to policy makers in particular, is that co-formulants or “inert” adjuvants used in the formulation of glyphosate-based products can make it more toxic than on its alone.

Glyphosate has also been shown to bioaccumulate, resulting in a concentration in the body greater than the human body can excrete. This has been confirmed in breast milk and urine samples. We still don't know what the long-term consequences of these residues in our bodies are.

In Africa, agricultural workers are the most exposed. It is known that individual personal protective equipment is either non-existent or inadequate and that spraying is often done by young people. Knowing that 90% of pesticides enter the body through the skin, an alarm has sounded regarding the health risks for this population.

The evidence accumulated to date on the toxicity of glyphosate-based herbicides to humans and animals calls for an immediate end to their use.

Two developments should also make us very vigilant:

- While industrialized countries are beginning to ban glyphosate-based herbicides, the manufacturers of these herbicides continue to sell them in countries of the South where their use is still authorized with very disturbing **co-formulants**. For instance, polyoxyethylene amine (POET, one of the co-formulants present in glyphosate-based products) has been banned in the EU since 2016, yet continues to be manufactured in China and India, where a significant portion of the glyphosate-based formulations used in Africa come from.
- Furthermore, following a possible ban on glyphosate-based products, other herbicides of particular concern will continue to flood the markets, including 2,4-dichlorophenoxyacetic acid [2,4-D amine salt], dicamba and paraquat, a herbicide that is extremely toxic to humans. **These herbicides should also be banned in Africa.**

The only way for African countries to reduce the use of glyphosate is to actively promote agro-ecological alternatives including mechanical alternatives”.

Mobilization against the Bayer-Monsanto Group in the United States and Europe

In 2018, Bayer bought Monsanto for \$63 billion, betting on the growing use of chemicals to feed an increasingly populous planet plagued by global warming. But the group has since had to deal with the controversial reputation of its American acquisition, both in the GMO seed business and in the pesticide business, activities that are the subject of various legal proceedings and political debates in many countries.

As of the end of July 2019, the German chemical and pharmaceutical company Bayer now faces 18,400 lawsuits filed in the U.S. against its subsidiary Monsanto's glyphosate herbicide. Bayer has been ordered to compensate California cancer claimants on three occasions. The amounts owed by the group in these three cases were nevertheless reduced by a second judgment, from \$289 million to \$78 million, from \$80 million to \$25 million and from more than \$2 billion to \$69.3 million respectively. Furthermore, Bayer plans to appeal and is challenging the very foundation of its liability, arguing that no organization in the world has concluded that glyphosate is dangerous since it was introduced in the mid-1970s.

However, in June 2020, Bayer announced that it would raise \$10 billion to end the lawsuits and compensate more than 100,000 American citizens. These court cases and the ban on glyphosate in multiple countries have had a profound impact on Bayer's share price. By the end of 2020, it had fallen by more than half from its level at the end of 2017-early 2018.

Mobilization against glyphosate in Argentina, see video accessible via the following link:
https://www.francetvinfo.fr/monde/environnement/pesticides/glyphosate/argentine-les-pesticides-au-coeur-du-debat_3841273.html

Mobilization in France in 2018-2020 of citizens who have glyphosate in their urine and will file Bayer-Monsanto

In April 2018, **the Glyphosate Campaign Association** (<https://www.campagneglyphosate.com/>) launched a national call to invite citizens to participate in a urine testing campaign to look for traces of glyphosate. The object of this campaign is:

- to show that everyone has pesticides in their body, glyphosate being one of the markers.
- to raise awareness among the general public, users and decision-makers.
- to file a lawsuit against those responsible for keeping this product on the market for endangering the lives of others, aggravated fraud and environmental damage.

More than 6,000 volunteers participated in late 2018 and 2019 in this campaign. 100% of the tests were positive ⁶⁰, proof of the presence of pesticides in our body (*glyphosate is a synthetic, man-made compound and impossible to find naturally in the environment*). Hypotheses of contamination by food have been raised as well as by the air in rural areas.

Following this campaign, more than **5,500** complaints were filed in France for **“endangering the lives of others, aggravated deception and environmental harm”**. The plaintiffs are targeting the CEOs and board members of all manufacturers of pesticides containing glyphosate, the presidents and members of the European Commission... In short, all those who could have a responsibility in this matter. All these complaints were directed to the health division of the Paris court in order to effect a single trial.

⁶⁰ "There is no official method for measuring glyphosate exposure levels in urine. However, two techniques are used: **the Elisa test and high performance liquid chromatography** and fluorimetric detection. The glyphosate campaign advocates have chosen the Elisa test. According to Frédéric Suffert, a specialist in plant epidemiology at INRAE, "Scientific literature indicates that both techniques can be used to quantify glyphosate. Chromatography is probably more accurate, but more expensive". He also adds: "An executive officer would have to intervene to ensure that approximately fifty samples are properly duplicated and sent simultaneously for analysis to a CHU lab for chromatography and to the Biocheck lab for ELISA. The approach would be 100% scientific and the result without appeal".

TOPIC 2:

Mobilization for the implementation of international conventions on pesticides.

Appendix 1 of this guide lists the main conventions regarding pesticides and other hazardous chemicals. It specifies which main active ingredients are concerned by each convention.

These are mainly the **Stockholm Convention** from 2006, the **Rotterdam Convention** initiated in 2004 by the United Nations Environment Programme, the PAN list from 2011 and including 18 highly hazardous compounds used in agriculture and also the **WHO 1a and WHO 1b** lists compiled by the WHO since 2007.

In addition to the above international conventions, there is a convention signed in Bamako in 1991 concerning the prohibition of importing hazardous wastes and substances (including pesticides) into Africa. The accompanying box describes the objectives of this convention and names the African States that have signed it. Unfortunately, 22 years after its entry into force, this Bamako Convention has not been genuinely applied in Africa. However, the elected officials and citizens of the countries that have signed it can use this text to demand its application by relying on the code established by the FAO [cf. http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/Annotated_Guidelines_FR.pdf].

An existing legislative framework to be tightened: example of the Bamako Convention on the prohibition of the import of hazardous waste into Africa

Established in 1991 in Bamako, Mali, by twelve nations of the Organization of African Unity and entered into force in 1998, the Bamako Convention is a response to Article 11 of the Basel Convention, which encourages parties to enter into bilateral, multilateral and regional agreements on hazardous wastes to help achieve the Convention's objectives. **This convention prohibits the import into Africa of hazardous wastes, including radioactive waste**, its incineration or dumping into the ocean and inland waterbodies. It promotes the minimization and control of transboundary movements of hazardous waste within the African continent. It also aims to improve and ensure environmentally sound management and handling of hazardous wastes in Africa, as well as cooperation among African nations.

The Convention has extended its scope to include hazardous substances, a category under which most hazardous pesticides fall [cf. its Article 2⁶¹].

Extracts from the preamble of the Bamako Convention:

"The Parties to this Convention,

1. are fully aware of the growing threat to human health and the environment posed by the increasing complexity and growth of hazardous waste production; [...]

⁶¹ https://au.int/sites/default/files/treaties/7774-treaty-0015_-_bamako_convention_on_hazardous_wastes_f.pdf

4. reaffirm the fact that States should ensure that the producer fulfills its responsibilities for the transport, disposal and treatment of hazardous wastes in a manner consistent with the protection of human health and the environment, regardless of where they are disposed of;

6. also recognize the sovereign right of the states to prohibit the import and transportation of hazardous wastes and substances on their land for reasons relating to the protection of human health and the environment,... "

Although ratified in 1998, it was not until 2013 that the parties held their first conference. However, a third COP-3 conference was held in Brazzaville in February 2020.

The following African States have ratified the Convention: Benin, Burkina Faso, Burundi, Chad, Cameroon, Comoros, Congo, Ivory Coast, DRC, Egypt, Ethiopia, Gabon, Gambia, Libya, Mali, Mauritius, Mozambique, Niger, Senegal, Sudan, Tanzania, Togo, Tunisia, Uganda, Zimbabwe, to which Angola, Guinea-Bissau, Liberia and Rwanda have been added since 2018. In total, in 2020, **29 states out of the 54** in Africa have ratified the Convention. Other African States must still be persuaded, and there is still much to be done to ensure that this Convention is applied⁶².

Finally, it should be mentioned that the Bamako Convention does not deal with the **use** of hazardous products such as pesticides. For these products, the legislative framework depends on national regulations and laws.

⁶² "The Bamako Convention is not actually applied in Africa, even 22 years after entering into force. This treaty of African nations prohibiting the import of any type of hazardous waste to Africa is still a mirage for most countries on the continent" [cf. <https://www.afrik21.africa/afrique-22-ans-apres-la-convention-de-bamako-sur-les-dechets-dangereux-a-la-peine/-17-fevrier-2020>].

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